Active Project (2014 - 2016)

Propulsive Descent Technology (PDT) Original Content Project

Game Changing Development Program | Space Technology Mission Directorate (STMD)

ANTICIPATED BENEFITS

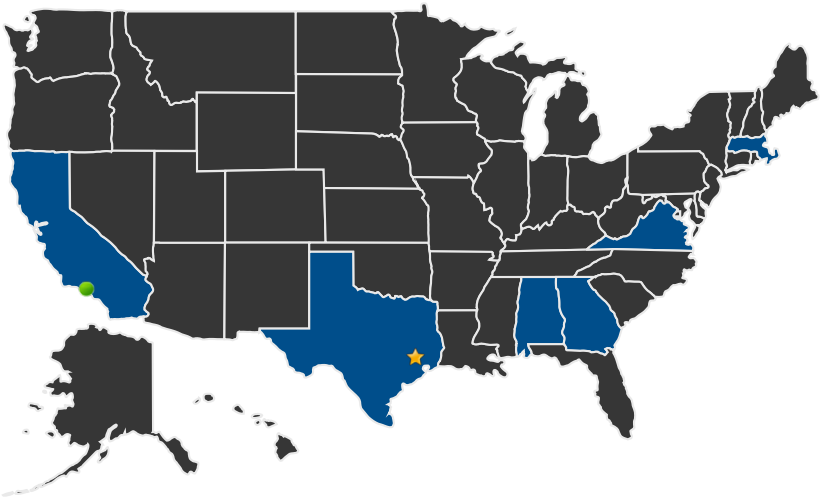
To NASA funded missions:

No currently funded NASA missions are utilizing SuperSonic propulsive deceleration technologies derived from PDT investments. Potential NASA Mars Human precursor missions in the mid-2020 timeframe, or commercial application of these technologies in the next decade, represent the earlist potential infusion opportunities.

DETAILED DESCRIPTION

Current technology does not support Mars human missions due to limitations in capability to land high mass support hardware. If we want to send people to Mars, we need to provide a new propulsive descent capability that extends to supersonic speeds and is applicable to human missions.

U.S. WORK LOCATIONS AND KEY PARTNERS



U.S. States With Work

Lead Center:
Johnson Space Center

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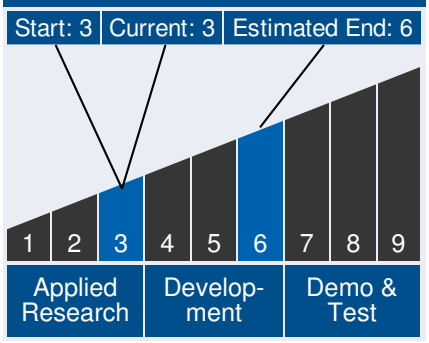
Technology Maturity



Management Team

Program Executive:
- Lanetra Tate

Program Manager:
- Mary Wusk

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Supporting Centers:

- Jet Propulsion Laboratory

Other Organizations Performing Work:

- Aerospace Corporation
- Georgia Institute of Technology
- Human Exploration and Operations Mission Directorate
- Johns Hopkins University
- Science Mission Directorate
- SpaceX
- U.S. Navy

Management Team *(cont.)*

Project Manager:

- Charles Campbell

Technology Areas

Primary Technology Area:
Entry, Descent, and Landing Systems (TA 9)
└ Descent and Targeting (TA 9.2)
└ Supersonic Retropropulsion (TA 9.2.3)

Secondary Technology Area:
Entry, Descent, and Landing Systems (TA 9)
└ Vehicle Systems (TA 9.4)
└ Modeling and Simulation (TA 9.4.5)

DETAILS FOR TECHNOLOGY 1